In the Claims:

1. (currently amended) A method of routing an information packet from a source router in a first autonomous system ~~via a first label switched path~~ to a destination router in a second autonomous system ~~via a second label switched path~~, the method comprising;

   establishing a first label switched path within said first autonomous system from the source router to an edge router of said first autonomous system;

   establishing a second label switched path within said second autonomous system from an edge router of said second autonomous system to said destination router;

   at an interface between the first and second autonomous systems comprising said edge routers of said systems, mapping the first label switched path on to the second label switched path.

2. (currently amended) A method of routing an information packet from a source router in a first autonomous system ~~via a first label switched path~~ to a destination router in a second autonomous system via respective first and second border routers ~~at~~ comprising an interface between said first and second autonomous systems, the method comprising:

   establishing a first label switched path within said first autonomous system from the source router to the first border router;

   establishing a second label switched path within said second autonomous system from the second border router to said destination router; and

~~wherein~~ employing a border gateway protocol (BGP) ~~is employed in which~~ to communicate a label that identifies both a forwarding interface for a packet and a forwarding behaviour at ~~that~~ the interface between said autonomous systems so as to provide a mapping from said first label switched path on to ~~a~~ said second label switched path to the destination router in said second autonomous system.

3. (currently amended) A method as claimed in claim 2, wherein the destination router in the second autonomous system returns to the source router in the first autonomous system a two-label stack comprising labels identifying said first and second label switched paths across the first and second autonomous systems respectively.

4. (currently amended) A method as claimed in claim 3, wherein said first label identifies ~~a~~ said label switched path from the source router to ~~a~~ the border router in said first autonomous system, and said second label identifies a route from the source router to the destination router.

5. (cancelled)

6. (original) A method as claimed in claim 3, wherein each router advertises new routes to reachable routers in its respective autonomous system via a BGP message.

7. (currently amended) A method as claimed in claim [[4]] 6, wherein route information is encoded in a network layer reachability information (NLRI) element that is inserted in the BGP message.

8. (currently amended) A method as claimed in claim 7, wherein ~~a~~ one of said labels is modified to change an egress label switched path of a said border router so as to provide a cross-connect function.

9. (original) A method as claimed in claim 7, wherein said labels enable multiple diversion route storage at a said border router.

10. (original) A method as claimed in claim 9, and including selection of routes from said stored multiple diversion routes so as to provide load balancing.

11. (original) Software in machine readable form on a storage medium and arranged to perform a method as claimed in claim 2.

12. (original) A communications network router controlled by software as claimed in claim 11.

13. (currently amended) A communications network comprised by a plurality of interconnected autonomous systems and in which information packets are routed from a source router in a first autonomous system via a first label switched path established within said first autonomous system from said source router to a first border router of said first autonomous system to a destination router in a second autonomous system via said first border router and a second border routers of said second autonomous system ~~at~~ , said border routers comprising an interface between said first and second autonomous systems, wherein the communications network is arranged to employs a border gateway protocol (BGP) ~~in which~~ to communicate a label which identifies both a forwarding interface for a packet and a forwarding behaviour at ~~that~~ the interface between the autonomous systems so as to provide a mapping from said first label switched path on to a second label switched path established within the second autonomous system between the second border router and the ~~to~~ the destination router in said second autonomous system.